REMARKS

Claims 1, 3-22, and 24-43 are now pending in the application. Claims 1, 20, 22, and 43 are currently amended. No claims are cancelled or newly added by this amendment. The Examiner is respectfully requested to reconsider and withdraw the rejection in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 1, 3, 20-22, 25, 42, and 43 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

In view of the Examiner's assertion, independent Claims 1, 20, 22, and 43 have been amended so as to recite that link state information is advertised "so that the IP/MPLS node treats the GMPLS label path as a normal link between the IP/MPLS nodes". Support for this amendment can be found, for example, on page 25, lines 15-18 and lines 23-25 as well as page 22, lines 12-14 (i.e., PSC-LSP mentioned on page 25, lines 15-18 and 23-25 is a GMPLS label path) of the specification as filed.

Since Claims 3, 21, 25, and 42 do not include the language pointed out by the Examiner, Applicant maintains that the rejection of these claims should be withdrawn if the rejections of Claims 1 and 22 are overcome. Accordingly, Applicant requests reconsideration and withdrawal of this rejection.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 3, 20-22, 25, 42, and 43 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Oki, et al. (U.S. Pub. No. 2003/0161633; "Oki"). This rejection is respectfully traversed.

Amendments

In order to further define the present invention, the independent claims have been amended as follows.

Claims 1, 20, and 22 have been amended so as to recite that the IP/MPLS node does not match with a GMPLS protocol. Support for this amendment can be found, for example, on page 4, line 23 of the specification as filed.

In order to conform to the recitation of Claim 1, Claims 20 and 22 have been amended so as to explicitly recite that the "GMPLS+IP/MPLS node" performs advertisement. Moreover, the claim language of Claim 43 has been amended so as to conform to the recitation of Claim 22.

Claims 1, 20, and 22 have been amended so as to recite that the GMPLS+IP/MPLS node has PSC (Packet Switching Capable) and LSC (Lambda Switch Capable). Support for this amendment can be found, for example, on page 4, lines 21-22 (i.e., GMPLS nodes have PSC and LSC) and page 23, lines 3-7 (i.e., GMPLS+IP/MPLS nodes can deal with a GMPLS protocol) of the specification as filed.

Arguments

Independent Claims 1 and 22

With respect the limitation recited in the last paragraph of Claims 1 and 22, the Examiner maintains the rejection as set forth on page 4, fourth paragraph of the Office Action.

However, the recitations cited by the Examiner merely disclose that link state information of optical path links between packet switches 2C and link state information of fiber links between optical switches 3C are advertised to adjacent nodes.

The excerpts pointed out by the Examiner neither disclose nor suggest the claimed limitation that the GMPLS+IP/MPLS node "advertises link state information of the GMPLS label path of the packet layer to the IP/MPLS node in the same form as that of a link between IP/MPLS nodes by a router LSA (Label Switching Advertisement) so that the IP/MPLS node treats the GMPLS label path as a normal link between the IP/MPLS nodes" (emphasis added).

Since the photonic router 1C of Oki shown in FIG. 22 (its detailed structure is shown in FIG. 23) is provided with a GMPLS controller 10C (see FIG. 23), the photonic router 1C of Oki may be a GMPLS node. However, FIG. 22 and FIG. 23 of Oki do not include nodes corresponding to an IP/MPLS node. In FIG. 22 of Oki, each photonic router 1C merely advertises link state information to other photonic routers. Therefore, unlike the present invention, FIG. 22 of Oki does not disclose the technical ideas of advertising link state information of a GMPLS label path so that an IP/MPLS node treats the GMPLS label path as a normal link between IP/MPLS nodes; advertising the link

state information in the same form as that of a link between IP/MPLS nodes; and advertising the link state information to an IP/MPLS node.

In the present invention, the GMPLS+IP/MPLS node performs advertisement to an IP/MPLS node. In contrast, Oki merely performs advertisement between photonic routers, which are the same type of devices.

The Examiner asserts that a flooding section 21C of Oki advertises link state information to a packet switch (i.e., reference symbol 2C) and an optical switch (i.e., reference symbol 3C) (see page 4, penultimate paragraph, last three lines of the Office Action). Thus, it appears that the Examiner considers that the GMPLS controller 10C of Oki, which includes the flooding section 21C, corresponds to a GMPLS+IP/MPLS node which advertises link state information.

However, the Examiner connects the GMPLS+IP/MPLS node with an optical switch 3C shown in FIG. 22 of Oki (see page 3, last paragraph, lines 1-2 of the Office Action).

Therefore, it is improper to connect the GMPLS controller 10C of Oki with a GMPLS+IP/MPLS node because such a connection is inconsistent with the Examiner's assertion that the GMPLS+IP/MPLS node corresponds to the optical switch 3C of Oki.

The Examiner connects the GMPLS+IP/MPLS node with the optical switch 3C of Oki, as explained above, and connects the IP/MPLS node with the packet switch 2C of Oki (see page 3, last paragraph, lines 6-7 of the Office Action). However, the packet switch 2C and the optical switch 3C are mere switches (for example, the optical switch 3C is a 128x128 switch as recited in paragraph 399 of Oki), and they do not correspond to the IP/MPLS node, which is provided with a device which holds link state information,

as recited in independent Claim 20. In Oki, a GMPLS controller 10C manages the packet switch 2C and the optical switch 3C, thereby allowing the photonic router 1C as a whole to function as a single node. Therefore, it is improper to connect the optical switch 3C and the packet switch 2C of Oki with a GMPLS+IP/MPLS node and an IP/MPLS node.

In the present invention, an IP/MPLS node does not match with a GMPLS protocol. Thus, in order to address problems caused by this mismatch, the GMPLS+IP/MPLS node of the present invention performs advertisement in the same form as that of a link between IP/MPLS nodes so that an IP/MPLS node treats a GMPLS label path as a normal link between the IP/MPLS nodes.

In contrast, Oki performs advertisement between photonic routers, which are the same type of devices, so that protocols of the photonic routers match with each other.

As mentioned above, it appears that the Examiner connects the packet switch 2C and the optical switch 3C, which respectively corresponds to PSC and LSC (see paragraph 395 of Oki), with an IP/MPLS node and a GMPLS+IP/MPLS node, respectively. Therefore, the independent claims have been amended so as to recite that the GMPLS+IP/MPLS node includes PSC and LSC. As a result, it becomes clearer that the Examiner's assertion is improper because the GMPLS+IP/MPLS node includes PSC and LSC.

Independent Claim 20

With respect to the recitation of the last paragraph of Claim 20, the Examiner maintains the rejection as set forth on page 5, third paragraph of the Office Action.

Since the Examiner's argument is similar to that made against Claims 1 and 22, the foregoing counter-arguments based on Claims 1 and 22 apply equally to Claim 20.

Dependent Claims 3, 21, 25, 42, and 43

Claims 3, 21, 25, 42, and 43 should be allowed at least by virtue of their dependency on the independent claims.

ALLOWABLE SUBJECT MATTER

Applicant acknowledges that the Examiner has allowed claims 4-19, 24, and 26-41.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this response is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: February 8, 2010

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